

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Previously Presented) A vehicular alternator comprising a rotor and a stator constituted by coiling stator windings over a stator core, wherein:

said rotor comprises i) a pair of claw-type magnetic poles which are arranged in an opposed relation, and each of which has a plurality of claws that are cantilevered at a proximal end thereof and extend axially to a distal end opposite said proximal end, ii) permanent magnets having rectangular lateral surfaces which face in a circumferential direction of the rotor and form magnetic pole surfaces that are disposed between and in contact with opposing lateral surfaces of adjacent claws of said pair of claw-type magnetic poles, and iii) field windings coiled radially inward of said plurality of claws;

the opposing lateral surfaces of said claws adjacent said permanent magnets are formed into substantially the same rectangular shape as the magnetic pole surfaces with which they are in contact, such that said lateral

surfaces of said claws are in contact with the whole of the rectangular lateral magnetic pole surfaces of said permanent magnets; and

each of said claws has, in a circumferentially central portion thereof, a radial thickness that is tapered along an axial direction, being thicker at said proximal end than at said distal end thereof.

Claim 2. (Previously Presented) A vehicular alternator according to Claim 1, wherein said lateral surfaces of said claws are formed by circumferentially laterally disposed auxiliary magnetic pole portions which contact the whole of the magnetic pole surfaces of said permanent magnets, and which project radially inwardly from said circumferentially central portion of said claws.

Claim 3. (Previously Presented) A vehicular alternator according to Claim 2, wherein said auxiliary magnetic pole portion is formed to have a greater thickness at a radially outer portion than at a radially inner portion thereof.

Claim 4. (Cancelled)

Claim 5. (Previously Presented) A vehicular alternator according to Claim 1, wherein said plurality of claws are interconnected by a substantially ring-shaped coupling member.

Claim 6. (Previously Presented) A vehicle alternator according to Claim 1, wherein each of said plurality of claws has a magnet holding portion for holding said permanent magnet.

Claims 7.-8. (Cancelled)

Claim 9. (Previously Presented) A vehicular alternator according to Claim 1, wherein a protective member is disposed at least on an outer side of said permanent magnet in the radial direction of said rotor.

Claim 10. (Cancelled)

Claim 11. (Previously Presented) A vehicular alternator having a stator including a stator core and stator windings coiled over the stator core, and a rotor provided to rotate in a circumferential direction relative to the stator, with gaps separating said rotor and stator, wherein said rotor comprises:

a pair of claw-type magnetic poles arranged in an opposed relation,
each of said claw-type magnetic poles having a plurality of claws;

field windings coiled with the claw-type magnetic poles; and

a plurality of permanent magnets provided to said claw-type
magnetic poles; wherein,

claws of one of the pair of the claw-type magnetic poles and claws of
the other of the pair of the claw-type magnetic poles are disposed alternately in
said circumferential direction of said rotor;

each of the claws has a proximal end portion at which said claw is
cantilevered, a distal end portion having a radial thickness that is thinner than
the proximal end portion, and lateral portions which face in substantially
opposed directions circumferentially of said rotor;

said permanent magnets are interposed between claws which are
circumferentially adjacent to each other;

each of said permanent magnets interposed between said
circumferentially adjacent claws has magnetic pole surfaces which face in

opposed directions circumferentially of said rotor and has a radial thickness that is greater than the radial thickness of the distal end portion of said claws;

said permanent magnets are interposed between said circumferentially adjacent claws such that a first portion of each of the magnetic pole surfaces faces a corresponding one of the lateral portions of the claws while a remaining portion of each magnetic pole surface does not face said corresponding one of the lateral portions of the claws;

auxiliary magnetic pole portions are provided between said claws and said permanent magnets; and

each of said auxiliary magnetic pole portions is in contact with substantially a whole area of the magnetic pole surfaces of circumferentially adjacent permanent magnets, including said remaining portion, for enabling magnetic flux outgoing from said remaining portion to flow into the claws.

Claim 12. (Cancelled)

Claim 13. (Previously Presented) A vehicular alternator according to Claim 11, wherein:

each of said auxiliary magnetic pole portions is formed as a single piece with one of said claws, and covers said magnetic pole surface with said lateral portion of the claw; and

the auxiliary magnetic pole portions are in contact with the magnetic pole surface.

Claim 14. (Previously Presented) The vehicular alternator according to Claim 11, wherein said auxiliary magnetic pole portions comprises members interposed between said magnetic pole surfaces and said claw lateral portion, for holding said permanent magnet.